Department of Energy
Germantown, MD 20874-1290

SEP 18 1995

Mr. Banny de Brum
Charge d'Affaires ad interim
Embassy of the Republic of
the Marshall Islands
2433 Massachusetts Avenue, NW
Washington, D.C. 20008

Dear Mr. de Brum:

Enclosed are the answers to the 8 questions, and the 49 questions posed in your letters dated May 26, 1995, and June 28, 1995, respectively.

Your input, concerns, recommendations, and comments at the July 28, 1995, Majuro meeting have been reviewed carefully and changes have been integrated, where possible, into the official response to your letters. We appreciated your perspectives and those of Minister Phillip Muller, and the representatives of the communities who attended the meeting.

The loss of the Pacific Area Support Office's logistical support on December 31, 1995, forces us to reexamine how we can achieve both continuity in the program and provide ongoing high quality, responsive services. Again, we welcome your input on these matters.

Enclosure 1, and its attachments, provide the responses to the 8 questions from your May 26, 1995, letter.

Enclosure 2, and it attachments, provide the responses to the 49 questions from your June 28, 1995, letter.

Please be reassured that the recent change in the leadership of the Office of International Programs does not affect our ongoing commitment to the people of the Marshall Islands and our support of these important programs.

Sincerely,

R. T. Bell

R. Thomas Bell
Supervisor
Pacific Health Programs
Office of International
Health Programs

2 Enclosures

cc w/enclosures:
Phillip Muller, Minister of
Foreign Affairs, Republic of
the Marshall Islands
Charge d'Affaires Thomas Murphy,
American Embassy, Majuro
Franklin Huddle, Department of State
Allen Stayman, Office of Territorial
and International Affairs
Bruce Evans, Senate Energy Committee
Rachel Kirsh, Senate Committee on
Government Affairs
Joel Kaplan, House Committee on
Appropriations
Steve Klaidman, White House Advisory
Committee on Human Radiation Experiments
Jonathan Weisgall, Bikini Counsel
Davor Pevec, Enewetak Counsel
Howard Hills, Rongelap Counsel

Answers to Questions in the May 26, 1995, Letter
from Charge d'affaires Banny de Brum

Q1. What is the precise scope of services being offered by the U.S. Army to DOE to support DOE's radiation-related work in the Marshall Islands?

United States Army Kwajalein Atoll (USAKA) is offering DOE the opportunity to utilize some additional capabilities besides the continued use of current services under the existing Interservice Agreement (ISA) to include the usual logistic support at Kwajalein, use of the Kwajalein Hospital, continued small boat operations that have so ably assisted in transport to and from Ebeye, and to provide ship-based support for approximately 60 days per year for environmental and dose assessment missions.

Q2. What is the motivation and public purpose served in acquiring from the Army services that are presently provided by the private sector?

Services provided under the Department of Energy (DOE) Pacific Area Support Office (PASO) by the contractor Raytheon Service Nevada (RSN) will cease by December 31, 1995. The Office of Environment, Safety and Health (EH) was informed of this decision by a letter from the Manager of the Nevada Operations Office (NV) dated October 25, 1994. The letter advised that EH should find a suitable replacement resource. Within the past 6 months, NV has offered to provide the contract services of their new management and agreement contractor. When the competitive process results in a new contractor, EH plans to exercise this option.

For many years, DOE's NV office, through its own contracting process, has utilized the logistics support capability of USAKA's base support contractor at Kwajalein Atoll to support the DOE program in the Marshall Islands. By utilizing the existing support on an Army base, we at EH only plan to continue this arrangement to maintain support continuity. It is up to the Commander of USAKA to determine how, and in what manner, support would be provided. Since a division of the parent Raytheon Corporation won the contract support for USAKA under open competition, EH would merely be calling on USAKA to continue current levels of support (i.e., dock handling operations, trailers storage, and shiploading) at Kwajalein. In addition, we would also require some additional services (i.e., Landing Craft Utility (LCU) 2000 vessel, local travel coordination, lodgings and subsistence coordination, and space and ancillary support at Kwajalein Hospital). This will be done using the same base contractor mechanism that has been done in the past, a base contractor that comes from the private sector.

Q3. What is the planned timetable for providing these services and what commitments, if any, have been made?

The current ISA with the U.S. Space and Strategic Defense Command (USASSDC) permits DOE to acquire the modest additions to services that it needs to perform the next two revisions in the fall 1995. Although there have been some informal discussions with Army personnel about the

support beyond December 31, 1995, no agreements have been reached or formal commitments made at this point.

Q4. Is a vessel to be provided? If so, please provide the details. Also, how will scheduling conflicts between Army missions at Kwajalein and DOE missions be resolved?

The Army has a medium-sized, fast, water craft (i.e., JERA) that can support local atoll travel and has provided that support daily to various islands within the Kwajalein lagoon. It has become evident that DOE can provide better and more complete DOE medical surveillance and medical care for the exposed and comparison populations at Rongelap and Utirik by using land-based Marshall Islands locations. We also believe there is merit in conducting in situ whole-body counting (WBC) measurements on land as appropriate locations in the Republic of the Marshall Islands (RMI). The Enewetakese are enthusiastic about our plans.

The need for more sophisticated equipment and diagnostics can better be met in the land-based process. This is necessary to ensure that the populations receive the very best care possible. Since this would not involve using the "Offshore Venture" for medical missions, the cost and need for a vessel for a whole year has become cost prohibitive.

USAKA has an LCU 2000 (Great Bridge), which is currently under-utilized and could be committed to the some 60 days per year needed to conduct the environmental and dose assessment portions of the DOE Marshall Islands' programs.

USAKA has initially indicated a willingness to arrange their commitments for use of the LCU 2000 and/or other suitable craft so that they will always be available during the times that we usually schedule the environmental and dose assessment missions in the spring and the fall. Since these missions are not as time-critical as the medical missions, EH can also be flexible in making such time adjustments for these missions in the event that unforeseen scheduling conflicts would affect the Army and its ability to assist us.

Q5. Will the Army face competition, from either private industry or the U.S. government, for the right to provide these services?

USAKA has already selected its private base contractor, Range Systems Engineering (RSE), a branch of Raytheon Corporation, through open competition.

Q6. Are the Army services being offered to DOE on less than a full cost recovery basis, taking into account all related support costs, non-recurring costs, cost of money and labor costs, including pension and fringe benefits?

We understand that the Commander, USAKA, has assured us that even at the highest level of the Commanding General, the Army is very mindful of our

requirement to affect full cost recovery services it provides to any range user. The negotiations on cost recovery for services will commence early in fiscal year (FY) 1996. EH hopes that this will be more competitive than current costs since RSN overhead rates have been rising in the last 2 years. We understand RSE's rates, due to the open competition, may be more advantageous.

Q7. Has a cost analysis been performed to compare the cost of Army-provided services with the present cost of industry-provided services? If so, my government would like a copy of such analysis?

EH is in the process of establishing what it has cost us to conduct logistic support in the Pacific using the current contractor RSN. The loss of RSN and PASO support by December 31, 1995, means we must analyze how to do business on funding similar to what is currently provided through NV to PASO and ultimately to RSN. Support has usually run around $2.26 million to $2.28 million for FY 1993 and FY 1994 (attachment 1). The addition of about $200,000 to a total of $2.593 million for PASO in FY 1995 has been the result of increasing overhead costs and medical referral costs.

The Office of Defense Programs has just authorized the expenditure of an additional $0.200 million (reprogrammed from FY 1995 Marshall Islands Program capital equipment funding available). This is to be used for the handling of yearend logistical support costs and the large number of yearend medical referral cases. This brings the PASO FY 1995 total to $2.793 million.

As can be seen, the other program funding has remained relatively stable over the past few years and will be level funded at $6.330 million plus $0.470 million capital equipment funding for FY 1996, the same as in FY 1995. This is more easily seen in the bar graph in attachment 2.

Program requests, if we could do everything that each program requested, would total about $6.800 million, both in FY 1995 and FY 1996. Attachments 3 and 4, respectively, show planned or projected expenditure levels within the authorized budget (larger more lightly shaded areas at the bottom of each program's bar graph) and the shortfalls for each program area (darker shaded areas at the top of each bar graph), based on program requests. We are obligated, in these times of budget constraints, to run the programs as efficiently and in a most cost-effective manner as possible. The shortfalls, above what is congressionally appropriated and Presidential approved, are shown in the shaded blocks at the top of each bar graph.

Attachment 5 is an estimate of how PASO plans to spend the authorized $2.593 million. The costing for the additional $0.200 million will not be completed until well into December 1995 when all medical bills will be finally known and compiled. The $2.593 million PASO budget assumes projects expenditures for medical referral will be $397,736 (the combination of medical referral logistics costs of $162,874 and the Straub Clinic and hospital costs of $234,862).

USASSDC will receive early in FY 1996 a list of specific services that we may require. They then will provide a breakdown of anticipated costs for services they plan to provide. At the time that USASSDC cost figures are received, it will be possible to do some cost comparisons. It is anticipated that this will commence in the first quarter of FY 1996. We are confident that we will affect savings that will enable us to apply these savings to other critically needed areas of our programs.

Q8. Were other interested parties, such as the Department of Interior, State Department or other RMI officials, consulted about turning over these functions to the U.S. Army? I am particularly concerned about this issue because of the dispute earlier this year between Dr. Pettengill and the National Academy of Sciences over the proposed shift of a program to Columbia University without full consultation?

The Department of the Interior (DOI), Department of State (DOS), and Republic of the Marshall Islands (RMI) officials were advised of the need for this transition at the DOE/RMI annual meeting in San Francisco, California. Three congressional staffers were invited to the meeting and one of them did attend the annual meeting.

During February through May 1995, Mr. Jonathan Weisgall was advised via phone conversations on at least three occasions of the status of current transition planning.

Harry Pettengill, Ph.D., Previous Director, Office of International Health Programs made a special visit to Majuro April 3-5, 1995, to discuss the transition strategy with RMI officials and DOI, who was there at the time.

On April 3, 1995, and again on April 4, 1995, Dr. Pettengill met with Ambassador David Fields and Charge d'affaires Tom Murphy to ensure DOS was fully apprised of transition planning.

On April 3, 1995, Dr. Pettengill also met with Foreign Minister Phillip Muller and Ministry of Health and Environment Secretary Donald Capelle and discussed transition planning with them.

From April 3-5, 1995, Dr. Pettengill also talked with Senator Ismael John, Mayor Naptali Peter, Senator Johnsay Riklon, and Mayor Billiet Edmond and had the opportunity to discuss those portions of the transition planning that was of interest to each party.

Dr. Pettengill also had time to discuss transition planning with Mr. Allen Stayman, DOI, who was also in Majuro at that time.

On June 6, 1995, and again on August 30, 1995, Dr. Pettengill and Mr. R. Thomas Bell, on the later occasion, briefed DOI, DOS, and RMI dignitaries on the current status and plans for the transition.

5 Attachments

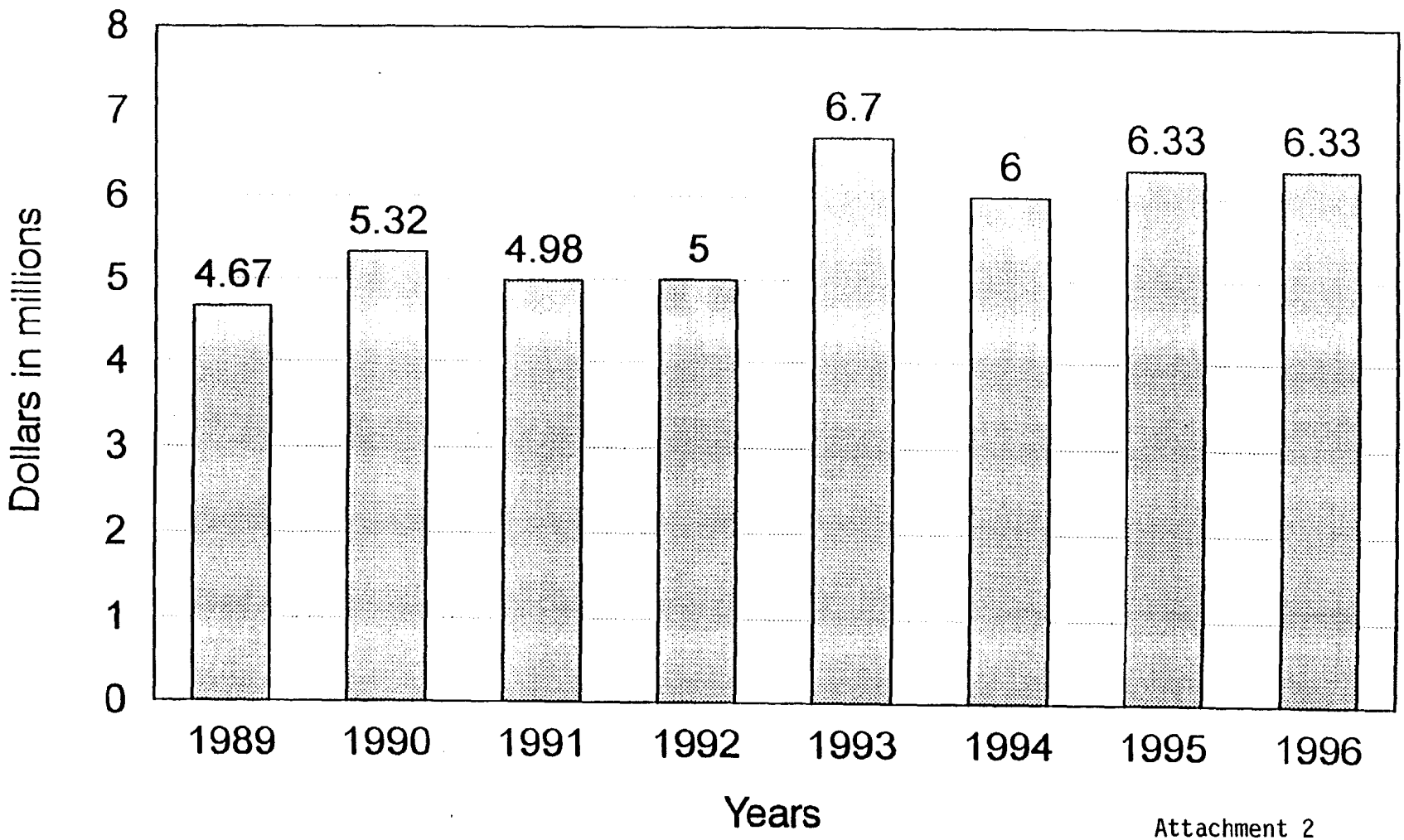
6/29/95

	FY90	FY91	FY92	FY93	FY94	FY95	FY96
BNL Total	1.980	1.800	1.480	1.950	1.780	1.560	1.560
BNL MED	0.990	0.900	0.850	1.010	0.890	0.785	0.820
BNL BIO	0.990	0.900	0.630	0.940	0.890	0.775	0.740
LLNL	1.810	1.660	1.765	2.110	1.840	2.136	2.236
PASO	1.530	1.520	1.450	2.260	2.280	2.593	1st Qtr 0.650
Pacific Logist.							2-4 Qtr 1.759
NAS	0.000	0.000	0.305	0.380	0.100	0.000	0.000
RMI Request						0.041	0.125
TOTAL	5.320	4.980	5.000	6.700	6.000	6.330	6.330

mibudgtb.yrs

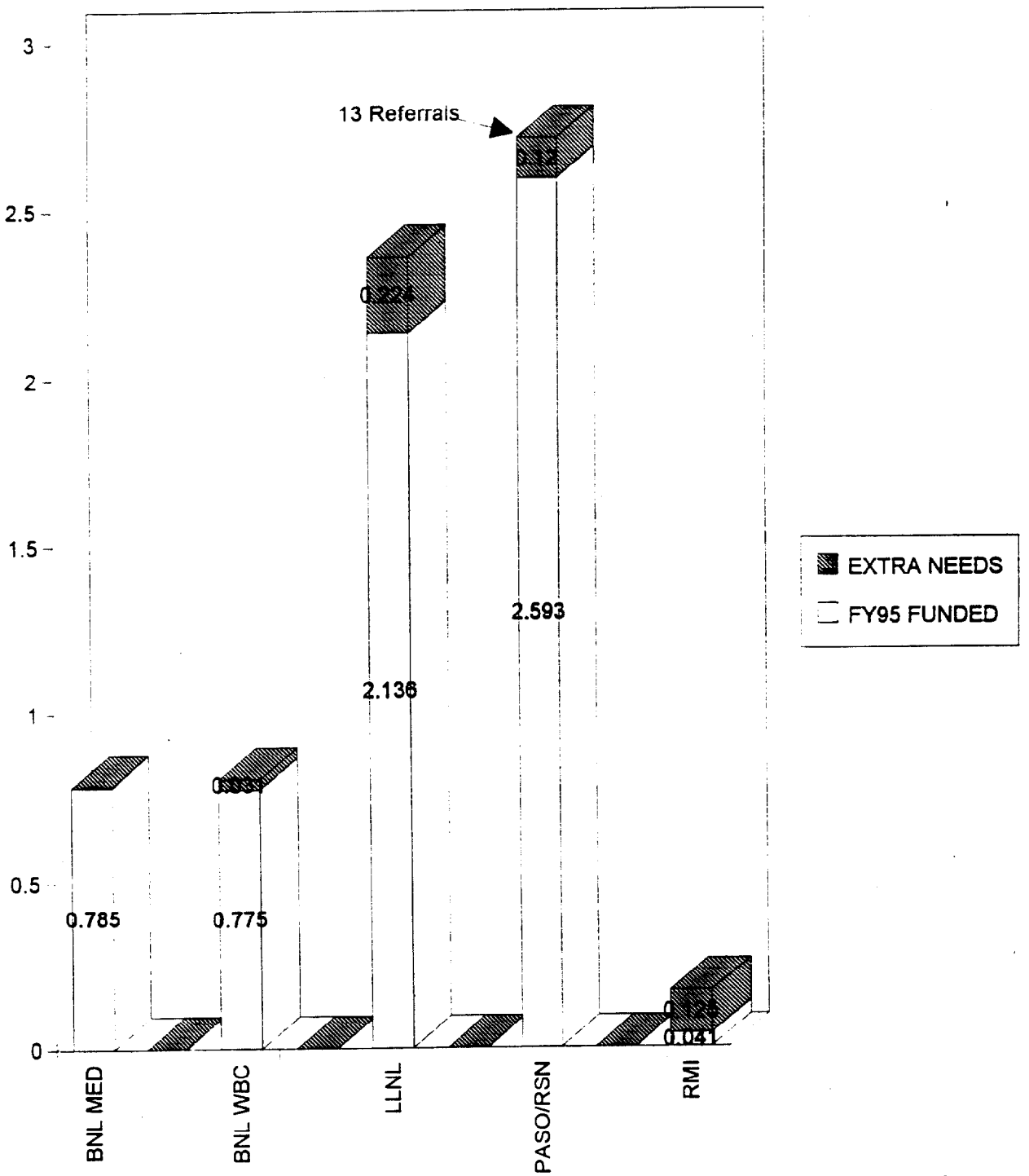
Attachment 1
to Enclosure 1

Marshall Islands Program Funding



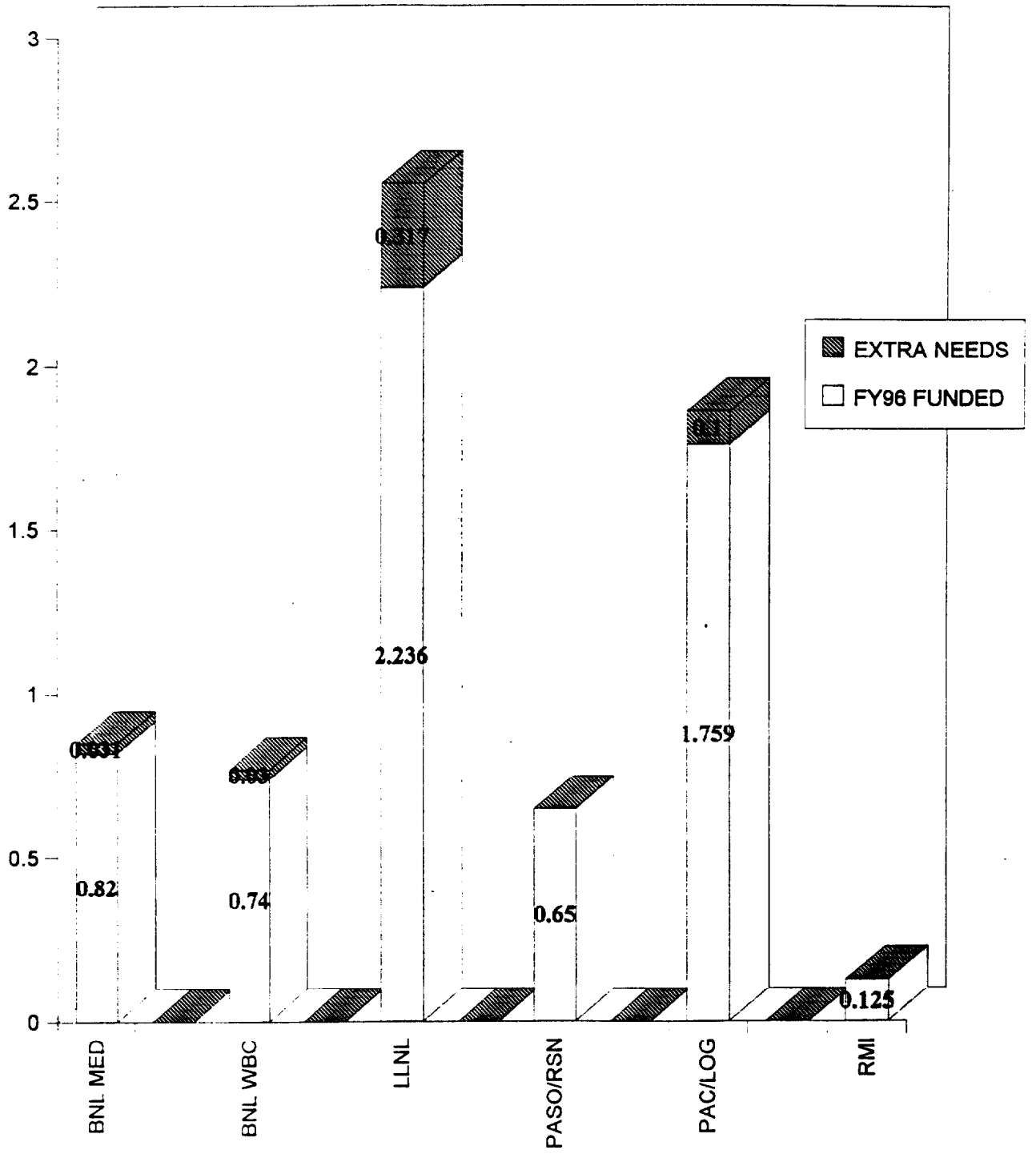
Attachment 2
to Enclosure 1

EXTRA NEEDS ($M) IN MARSHALL ISLANDS FY 95 FUNDING



Attachment 3
to Enclosure 1

EXTRA NEEDS ($M) IN MARSHALL ISLANDS FY96 FUNDING



Attachment 4
to Enclosure 1

PASO/RSN LOGISTICS. FY95	$
ESTIMATED BUDGET	
VESSEL CONTRACT	
Offshore Venture	$899,345
MATERIALS & SERVICES	
Program Support	
Medical Support	$106,705
LLNL/Bikini Field Station Support	$239,726
Kwajalein Support	$175,458
WBC Support	$9,366
Majuro Office	$12,178
Subtotal	$543,433
Medical Referral - Logistics	
Transportation Cost	$62,665
Hotel Cost	$24,383
Per Diem Cost	$35,826
Kwaj Mammography Support	$40,000
Subtotal	$162,874
Program Administration Costs	
Support Service Charge	$190,104
Material Surcharge	$26,401
Services Surcharge	$61,238
Subtotal	$277,743
Subtotal/Materials & Serv.	$984,050
HOSPITAL SERVICES	
Straub Clinic & Hospital	$234,862
LABOR/PERSONNEL COSTS	
Kwajalein Support (2.5 FTE's)	$162,510
Majuro Support (0.75 FTE's)	$14,025
Bikini Support (4.24 FTE's)	$266,686
Medical Support (0.32 FTE's)	$20,180
Patient Referral Support (0.83 FTE's)	$11,342
WBC Support (0.00 FTE's)	$0
Subtotal	$474,743
Grand Total	$2,593,000

Attachment 5
to Enclosure 1

Answers to Questions in the June 28, 1995, Letter
from Charge d'affaires Banny de Brum

Q1. Do you intend to bid out any services you outlined at the June 6 meeting, including, for example, use of a vessel provided by the private sector in the Marshall Islands?

We plan to continue to use similar services to those we already receive from United States Army Kwajalein Atoll (USAKA) for most logistic support as has been the case in the past. The only difference will be the removal of the Pacific Area Support Office (PASO) and its contractor, Raytheon Services Nevada (RSN). We will continue to depend on Department of Energy (DOE)/Nevada Operations Office (NV) for base contracting support for Honolulu staffing on a direct charge basis. All we will be doing is relying upon greater support and use under the provisions already authorized under the existing USAKA Interservice Agreement (ISA). This will save overhead costs and expedite the services we need. We plan to continue logistic support services through use of contracts at DOE/NV, as it had been done in the past, and let them coordinate the logistic needs by use of services from their newly selected maintenance and operations contractor. Some of the funding that was going to PASO will be reverted to use by Brookhaven National Laboratory (BNL) and Lawrence Livermore National Laboratory (LLNL). Therefore, we do not intend to "bid outside" in the immediate future.

Q2. Please explain in detail the cost to DOE of services being offered by the Army. Specifically, are they on a less than a full cost recovery basis, taking into account all related support costs, maintenance costs, non-recurring costs, cost of money and labor costs, including pension and fringe benefits?

Services being provided by the Army will be on full-cost recovery (according to the Army) and will be based on their existing rate manuals or rate services schedule. Now that we have conducted our discussions with you, we plan to negotiate just what our specific needs will be. Although we discussed our needs in general, such as the possible use of the Landing Craft Utility (LCU), "Great Bridge," and have a ball-park idea of what it would cost, we have not asked for specific costs as yet.

Q3. You indicated at our meeting that the Army was not going to be charging DOE for any expenses. Our experience, and that of other contractors in the Marshall Islands, is different, as we find that the Army charges for almost everything it does, ranging from replacing engines to providing services. To take a tiny example, are you saying that the Army will not charge DOE for the driver who picks up a patient at the airport and drives them to the Kwajalein hospital, or for the Army person who escorts that patient to the hospital? If these peoples' time (Plus gas, wear and tear on the vehicle, etc.) is devoted to a DOE program, why won't the Army charge DOE?

We realize that the Army has a high overhead charge. Therefore, we will only utilize those services that we feel are needed to primarily support the environmental missions. Prior to this next year, we have already

started to utilize the Kwajalein hospital for mammographies and will continue to do that in the coming year. In addition, we plan to ask for some additional space in the Kwajalein hospital for the purpose of conducting annual examinations and running routine tests. The Army will be reimbursed for such support as is mutually agreed. The Army contractors driving DOE vehicles, the example given in your question, would not apply under our plans. We intend to continue to use DOE/NV contractor staff at Kwajalein.

Q4. What is the total cost of doing business with Army compared to DOE's costs of providing these services under the old system?

Our projected costs for fiscal year (FY) 1996 upcoming will provide funding that will be shared between PASO (1st quarter only), LLNL, BNL, and for those services similar to FY 1995 are included in attachment 1 to this enclosure. Business will be conducted using PASO and RSN services up through December 31, 1995. Note, some of this will require added support above those in FY 1995, such as the LCU support. It is anticipated that the Army LCU will cost about $110,766 for the Spring 1996 Environmental Mission. This is based preliminary upon information that is thought to be in the right ball-park for about 30 mission days needed in FY 1996. We plan to extend the "Offshore Venture" for the first 3 months of FY 1996. This will permit normal shipboard operations for the Fall Medical and Environmental Missions. Attachment 2 to this enclosure shows how PASO expended the approximately $2.6 million Pacific logistic funding. A portion of the cost estimates in attachment 1 to this enclosure have been made based on the rates, which we are advised are enumerated in the USAKA Financial Policy and Rate Manual, revision 1, February 15, 1995.

Q5. Has any cost analysis been performed to compare the cost of Army-provided services with the present costs? If so, please provide us with a copy.

Services that are likely to be provided by the Army at Kwajalein are included within the planned budget shown in attachment 1. We will pursue in more detail (when we begin negotiations with the Army) the USAKA rate schedules when they are appropriate for an item of support. We have yet to enter into negotiations with the Army to develop more precise budget projections. We are currently reviewing how current laboratory programs can be expanded to include some Pacific logistics processes. It may be possible to conduct portions of the programs more cost effectively by current and past program practices that could be part of the DOE laboratory programs.

Q6. Has any independent financial arm of DOE, such as the Inspector General's Office, an audit office or other reviewed this cost data? If so, please provide a copy.

It is not normal practice to have each program at DOE independently audited as day-to-day program management of funding is often best understood at the program level. Only if there appears to be some

irregularity in spending is an audit considered necessary. The present program, though costly, has been functioning well and there is no evidence at this time that the program will not continue to meet its primary obligations.

It, of course, is not possible to provide expanded services in all areas of the program on a fixed budget without the need for a very careful look at where available funding can best meet the congressional mandate provided in the public laws that define DOE's role in the Marshall Islands.

Requests made by the Government of the Republic of the Marshall Islands (RMI) relative to the review of programs, release of data, access to information systems, and copies of medical records, to mention a few, now also place an additional burden on the same budget dollars. These costs for FY 1995 and 1996 show up as a line item in attachment 1 to enclosure 1, and in the bar graph in attachment 4 to enclosure 2 of this letter.

Q7. If the Army takes over a greater role in the medical program, what impact would this have on volunteers? We ask this question because we understand that there is a high level of prestige associated with working for Brookhaven National Laboratory as opposed to the U.S. Army.

The Army is not taking over a greater role in the medical program. BNL is still coordinating all medical care and diagnostic workups. BNL will still evaluate each patient, provide medical care, and recommend referrals as are needed to provide any tertiary care. It may be possible to provide some of this care right at the Kwajalein hospital creating less travel impact on infirmed patients.

Kwajalein hospital has already been used for all mammographies and will continue to be used so that the best diagnostic technology can be applied. We do plan to utilize increased space at Kwajalein for medical examinations and to make greater use of clinical and radiology diagnostics at Kwajalein to evaluate patients either at Ebeye or those that will be brought to Kwajalein from Mejatto. We also plan to continue examining patients with our own physicians who will provide these services ashore at Kwajalein. We do not foresee a decline in the number and quality of our medical volunteers.

The radiology area at Kwajalein hospital is better than the facilities on the Offshore Venture. An administrative area is available in the Occupational Preventive Medicine Department. Pharmacy services are available. Laboratory facilities are also available. Kwajalein advises that the laboratory will be able to accommodate a temporary extra influx of patients. The equipment in this laboratory is up-to-date and is state-of-the-art diagnostics. A special procedure room is available.

It is currently planned to fly Utirik patients to Majuro for their examinations and diagnostics since the Utirik people usually matriculate

to Majuro more regularly than they do to Kwajalein. We plan to use RMI charter flights that will permit groups to be flown in and returned after a short stay in Majuro. We also propose to visit the outer islands during each mission with a small, specialized team in order to examine the homebound at Mejatto and Utirik.

Q8. What protection will you have on the use of the LCU if the Army has a sudden call on the vessel for DSI-related or other activity during a period of time scheduled for a Lawrence Livermore mission?

As mentioned previously, USAKA has initially indicated a willingness to arrange their commitments for use of the LCU 2000 so that it will always be available during the times that we usually schedule the environmental and dose assessment missions in the spring and the fall. Since these missions are not as time-critical as the medical missions, EH can also be flexible in making such time adjustments for these missions in the event that unforeseen scheduling conflicts would mandate for Army LCU support.

Q9. What will you do if Army activities at Kwajalein increase to a level that the LCU will not be available?

There are other local ship alternatives that could be explored if such an eventuality arises. It is not envisioned by the Army at this time, from preliminary discussions, that we should have any problem relying on the LCU 2000 for the limited 60-day use we plan. At any rate, the Army is willing to substitute vessels for us at equal rates, if the need arises.

Q10. What will you do if the Kwajalein hospital becomes too crowded?

We do not believe that the Kwajalein hospital will become too crowded. We are already considering bringing the laboratory trailer currently used at Ebeye to a position near the Kwajalein hospital. The use of temporary Army hospital field facilities is also possible, if this problem should ever present itself.

Q11. Do you anticipate bringing all patients into the Kwajalein or Majuro hospitals at once? Won't this overtax the facilities?

We plan to bring patients in to the hospitals in groups such that we can provide medical surveillance and care for each group, let that group return, and bring in the next group. This will require the use of charter flights in the case of the Utirik populations coming to Majuro and the use of boats to bring the patients from Mejatto to Kwajalein and from Ebeye to Kwajalein.

Q12. If you fly in the Rongelap-Utirik patients, rather than visit them on-site, what provisions, do you intend to make for accommodations, meals and per diems? The cost of per diem and quarters can run high, especially if they stay for several days. What is the number estimated to be? Was it in the figures you presented at the June 6 meeting?

We are planning on transporting and providing medical coverage for about 28 Utirik patients on a average of twice yearly and have projected up to 7 days per diem and meal expenses for each patient. This was discussed at the July 28, 1995, meeting in Majuro. The projected costs for the land-based medical program are shown in attachment 1 to this enclosure (about half way down the first page) under the section entitled "Land Based Med Program".

Q13. Do you anticipate that Hickam Air Force Base will be turned over to the Army of the other entity running this program out of Honolulu? If so, what assurances do you have?

NV currently holds, and will continue to hold, the ISA with the Air Force. DOE expects to maintain some logistic support staff at Hickam, but envisions that there will be less overall use of space in Building 3225 for DOE-related programs. NV will advise the Air Force regarding the reduced use of the Hickam office building.

Q14. Do you have any written assurances from the Army on any of these points?

Nothing has been conducted formally. Only exploratory discussions with the Commander of USAKA as to possible arrangements have occurred. Before there are formal negotiations, USAKA will require a needs statement as to what services we will require under the current ISA. That needs statement is in the process of being developed.

Q15. What will happen if the budget for Army support turns out to be greater than the estimate during the course of a fiscal year?

Army logistic services costs will be evaluated with current DOE laboratory capabilities. We will evaluate the cost of NV contracted support cost versus the Army's logistic services to determine which is most cost effective. If both seem too high, EH will begin to explore if other options might be able to provide some of the logistic services more economically. Once the needs statements are developed, it may be that other options will be explored concomitantly with other cost estimate processes.

Q16. You stated that you thought DOE could transport all the exposed people to the land-based medical facilities based on fare rates from the Airline of the Marshall Islands (AMI). Did either DOE or AMI perform a cost analysis, or are you working with rough estimates from AMI?

Currently we are projecting costs based on a rough estimate of $1600/hour. AMI has advised that they have one Dornier on standby that could be utilized for these special charters from Utirik to Majuro and back to Utirik. Additional patients, from time-to-time will be flown from Utirik to Majuro on the routine weekly Dornier (AMI) service. These estimates are summarized in attachment 1 to this enclosure on page 2 under the category "Medical Referral/Majuro - Air/Within Majuro". We have spoken with officials of your national air carrier and can

assure you that they welcome the additional business and have pledged to serve us.

Q17. You have discussed a "partnership" with the people of Enewetak with respect to the whole body counting facility to be installed at Enewetak. What exactly does this mean: For example, who will provide the counter? Will it be old or new, state of the art, or something else? Will Brookhaven only come out to calibrate the equipment and train Enewetakese to use it? Is that sufficient?

The DOE Marshall Islands Program, heretofore, has provided whole-body counting (WBC) capability to the Enewetak people by conducting shipboard missions to Enewetak. The Enewetak and Ujelang Local Government Council's (EULGOV) recent requests to cover the entire resettled population of some 800 individuals at least once every 2 years, if not yearly, is exceeding the capability of the current program and logistically is becoming difficult. EH anticipates that the local Enewetak trainees can successfully conduct the WBCs. EH would be willing to pay local Enewetak personnel to do these counts on a regular basis.

Preliminary discussions with the Senator of Enewetak, Senator Ismael John, indicates that EULGOV would be interested in permanently locating a DOE whole-body counter at the Enewetak Island field station for use by the Enewetak people for routine WBC. DOE will maintain technical responsibility for the WBC program at Enewetak. DOE will assist EULGOV in periodic calibration and local area assistance visits. During such visits, DOE will maintain a local coordinator to supervise the WBC. This coordinator will spend up to 1 month, three to four times a year, to ensure continuity in program efforts. BNL personnel, either during such visits or at other times will provide onsite calibrations and will help and assist as needed. In intervals between DOE visits, Enewetak would be encouraged to do additional WBC using trained local Enewetak part-time hired and paid local staff. This will be used to augment DOE supervised WBC. This assistance will be needed to successfully process the full number of Enewetakese who need WBC.

It is possible to transfer the WBC chair and initial equipment as early as November 1995. A team of DOE personnel would visit Enewetak in November 1995 to facilitate the setup of a multi-channel analyzer, the sodium iodide counting crystals, and other associated computer equipment. DOE would provide one of its two current whole-body counters with all the associated electronics and computers to Enewetak for permanent use at the old Coast Guard Station facility. Preliminary review of that facility this spring makes it look promising that the whole-body counter can be installed satisfactorily there. EH will provide all the necessary WBC equipment and will update that equipment based on future program evaluations.

Local Enewetak trainees could become proficient in operating the whole-body counter at intervals convenient to covering the Enewetak population at regular intervals over the year. DOE would assist in this

training, could setup initial calibration, train chosen Enewetak designees on the proper calibration techniques and procedures, and will periodically ensure the calibration is being conducted properly.

Joint sessions with DOE personnel present could verify procedures, cross compare operational procedure and results, and share in joint analysis of the spectral peaks found in the Enewetak people so monitored, both during the joint sessions and when Enewetak is conducting them themselves.

Common data banks could be developed to enable cross discussion of any changes in individuals that might require DOE assistance or interpretation.

A memorandum of agreement (MOA) is provided as attachment 3 to this enclosure for consideration by RMI and the Enewetak people.

Q18. As you know, the Bikini people are commencing construction on the King Juda Health Physics laboratory this summer, using their Resettlement Trust Fund moneys. Do you intend to provide the whole body counter for this laboratory? If so, the same questions as in question 15, above, apply? New? Used? State of the art? Future role of Brookhaven?

If the second DOE WBC system is installed elsewhere in the Marshall Islands, it would likely be at one of the population centers either at Majuro or at nearby Ebeye. When significant populations begin to resettle at Bikini and Rongelap (at some point in the future), EH will consider the option of setting-up WBC capabilities at these locations. It was our understanding that the International Atomic Energy Agency was considering actions to assist in setting-up the King Juda Health Physics Laboratory at Bikini. This is an item that should be thoroughly explored at future meetings between EH and the Bikinians and their representatives.

Q19. What is the total estimated cost of new logistical arrangements, including the specific costs of running the Bikini field station?

The total estimated cost of conducting logistics for FY 1996 is $2.409 million. The elements of this projection have already been discussed in question 4 above, and a detailed summary sheet provided as attachment 1 to this enclosure.

Q20. As to the Bikini field station, what are the elements of the DOE plan? For example, do you anticipate a transfer of the field station and a "lease-back" for the two 30 day periods Livermore (i.e., U.S. Government) equipment at Bikini? What is DOE's current cost of running the field station?

We have already requested input through Mr. Jonathan Weisgall, legal counsel for the Bikinians, as to whether Bikini would be interested in assuming management of the Bikini field station. It appears, with the expanding activities at Bikini, with an envisioned commercial diving

program, and with greater anticipated use of the Bikini field station for Bikini's construction and resettlement activities, there is merit to such a transition when agreements can be reached.

Preliminary word from Mr. Weisgall after recent visits to Kili, spring 1995, is that Bikini is interested in this approach. Under this arrangement, EH would turn the field station over to Bikini and would pay Bikini a daily rate for use of the field station during period of DOE use for environmental missions. DOE would require the rental of a secure area to store its equipment and supplies between missions and would be willing to pay a rental fee for the partial acre needed for this purpose.

As noted in attachment 1 to this enclosure, EH is estimating that costs in FY 1996 to support Bikini and LLNL missions will be about $97,000 in environmental operational costs, about $278,000 for operational support, personnel and small boats. and about $48,000 for temporary local hires. These estimated FY 1996 total about $428,000. Estimates this year (FY 1995) from attachment 2 would indicate that it will likely cost DOE about $240,000 in FY 1995 for Bikini field station support and about $267,000 in FY 1995 for Bikini personnel support costs.

Q21. Is the existing DOE/Department of Interior (DOI) memorandum of understanding an adequate legal document under which to effectuate the transfer of the field station at Bikini and other DOE property located there? Can DOE legally turn over the field station and other U.S. Government property to the Bikinians for use at Bikini Islands?

The existing DOE/Department of the Interior (DOI) Memorandum of Understanding (MOU) with Bikini was designed as a "funds in" agreement with funds being provided to reimburse DOE for services provided under an annual statement of work. The MOU would likely have to be modified to allow "funds out" from DOE to Bikini to reimburse the Bikini people for services/use of facilities authorized under the new Bikini management concept. Once tentative agreement is reached, such a change could be initiated.

The Bikini field station has never been DOE's from the beginning. It has always belonged to the Bikini people. DOE has just been fortunate in that Bikini has allowed DOE to use the facilities. DOE has made capital improvements to the field station that have added an aggregate value that, up to recently, has been considered to far outweigh the cost of depreciation of the field station assets. This year Bikini requested, for the first time, a $6000 wato rental fee for the Bikini Field Station, which we have directed be paid. We see no legal problem in turning over the field station to Bikini with internal kitchen equipment and facilities as they currently exist. We would just leave such capabilities in place and consider the facility to be sufficiently depreciated as to make null and void any necessary renumeration for the facilities left behind.

There, of course, are various equipment that must be maintained at Bikini that support our environmental missions. That equipment would remain the property of DOE. Bikini would be asked to provide a means to secure the equipment's safety and to monitor/care for the agricultural gardens between DOE visits. If the capability exists and agreement can be reached, we may ask that some of the local maintenance and preparation for the use of such equipment be done by Bikini workers prior to each mission.

Q22. If someone (non-U.S. Government) is injured on DOE equipment located at Bikini Islands, who will be liable?

We have in the past assumed that neither party at Bikini would hold the other liable for injury sustained on Bikini Island during normal environmental monitoring missions and agricultural maintenance activities. This most likely will need to be more formalized by agreement when we consider the transition of management of the Bikini field station back to the Bikini people.

We have recently expressed concern about the liability that DOE might sustain for assisting in the conduct or training associated with diving operations. This comes primarily from the lack of a hyperbaric decompression chamber at Bikini, and the lack of rapid logistical capability to get someone to a hyperbaric decompression chamber. It also involves the proper maintenance and operation of the diving gear used by DOE to inspect the hull of the Offshore Venture. For these reasons, we have limited diving operations at Bikini to only those down to a depth of 60 feet.

Once we turn over all associated field station kitchen and generator equipment to Bikini, we would consider it Bikini's responsibly to ensure that equipment is in safe operating condition. DOE would not be using that equipment and would not anticipate any liability problems for DOE personnel on DOE environmental missions.

We would maintain, or might pay Bikini to maintain, some of the equipment that would be secured at Bikini between missions. Though joint inspection, it would be determined that such equipment could be safely used by both DOE or Bikini helpers prior to mission activities. If an accident happened on equipment that was found to be safe and in good working condition, no liability on either side would be assumed. Here again, it would be best if this arrangement was formalized so that it is in writing and understood by all parties.

Q23. If the referral trends continue as you outlined at the June 6 meeting, it seems likely that DOE will have to take more and more money from the environmental monitoring program to pay for these patient referrals. If this becomes the case, how would you ensure that the Livermore program is not adversely impacted? Do you intend to allow for this in your fiscal budget request?

We are level funded by Congress, the Office of Management and Budget (OMB), and internal DOE budget authority at $6.33 million operational funding for FY 1995 plus $0.470 million in capital equipment funding for a total of $6.800 million. Currently our budget for FY 1996-1998 is funded at the same level. The Department is not authorized by OMB to request funding above that approved in the Administration's budget. We are making every attempt to make the funds made available to us each FY serve the most urgent needs of all the associated Marshall Islands program elements. Budget planning is being done in such a way that important environmental commitments will not be negatively impacted. Anticipated program efficiencies and enhancements will only improve our future mission activities, including those associated with the environmental work.

Q24. Specifically, who in the RMI asked for the proposed changes to the DOE program?

The Senators and Mayors of the Local Atoll Government Councils have over the last few years asked for more extensive grid characterization of islands in the four affected atolls most impacted by BRAVO. This expansion of the environmental monitoring scope has made it necessary to seek efficiencies in other areas to accommodate these requests. All of this must be affected on a level budget. This is partially why some of the planned changes are necessary.

RMI has asked for an independent review of the BNL Medical Program, for copies of documents relative to openness initiatives, and for a grant to access the documents at the Coordination and Information Center in Las Vegas, Nevada. DOE has had to accommodate these request within the current budget.

The RMI Nationwide Radiological Study contracted with Japanese physicians to conduct thyroid ultrasounds on a large group at Ebeye and Majuro. The detection of small non-palpable thyroid nodules has resulted in extensive new followup for the exposed populations of Rongelap and Utirik and has resulted in the need for DOE to begin the more extensive use of thyroid ultrasounds to address the concerns of the Marshallese people. This, in addition to the aging population, has contributed to the increased need for medical referrals for medical diagnosis and care. This has significantly increased medical care costs. DOE has had to accommodate these medical needs by searching for economies in other parts of the current program. The changes are being planned to provide more sophisticated medical care locally in the Marshall Islands to do the diagnostics and affect more treatment locally.

Mr. Davor Pevec, legal counsel to Enewetak has expressed at the last two annual DOE/RMI meetings, the need to cover at least half of the 800-1000 Enewetak population with WBC each year, if not all of them. In order to make this possible, one ship-based mission a year cannot serve that need. The placing of one of the DOE whole-body counters at Enewetak and the training of local personnel to routinely conduct WBC

seems the most effective means to accomplish this request. The details of what is entailed has been covered earlier in question 17 and is further amplified in the upcoming questions 32 to 42.

The need to provide more sophisticated diagnostics for the aging Rongelap and Utirik population and the expanded number who need secondary and tertiary care has made it prudent to explore how we can more capably provide needed medical care to these patients in the Marshall Islands. Conducting our medical missions at Majuro hospital and Kwajalein hospital seems to offer the best alternative. It is not considered possible to deliver this quality of care on two shipboard-based missions annually. This has not been requested, but is an issue that must be effectively resolved.

DOE feels there is need to affect some cost efficiencies in the operation of the Bikini Field Station by shared, but by separately managed operations that do not conflict with one another. Mr. Jonathan Weisgall, legal counsel for the Bikini people and articulated the interest of the Bikinians in sharing the use of the Bikini Field Station for 1 or 2 months each year. This is based on the desire of the Bikini people to utilize the Bikini Field Station for portions of the year for Bikini arranged commercial diving operations and a projection of greater overall use of the field station by the Bikini people as they conduct resettlement activities.

Q25. From who in the RMI national or atoll government did DOE/EH secure approval for the changes? What form of approval did you obtain?

While DOE does not require by law or treaty RMI approval for changes to our congressionally mandated programs, we do seek, and will continue to seek, RMI's counsel and advice. Accordingly, the contacts made by Dr. Pettengill on his April 3-5, 1995, visit to Majuro have already been summarized in question 8 of enclosure 1 to this letter. Dr. Pettengill got positive feedback in the land-based approach to medical care and the land-based WBC at Enewetak from Minister Phillip Muller, Secretary Donald Capelle, Senator Ismael John, and Mayor Naptali Peter, as well as the chief of staff at the Majuro Hospital. At this point, it has been verbal. In question 17, we provided as attachment 4, a draft MOA for the proposed WBC at Enewetak. A draft MOU with the Ministry of Health and Welfare is provided as attachment 5 to this enclosure to address the issues in conducting a land-based medical program for the exposed populations at Rongelap and Utirik and comparison population primarily from Utirik.

Q26. You indicated on June 6 that there are only 137 Marshallese in the DOE/EH program Are there others in the RMI who the Brookhaven National Laboratory tests or monitors?

There are also about 109 comparison group personnel primarily from the Rongelap population that are also followed at least annually, if not on a twice a year basis. This group is referred to the 177 Health Care

Program if tertiary care is needed beyond what can be provided by DOE during its medical mission visits.

Q27. Would only the people living in Ebeye go to the medical facility at USAKA? This was not clear at the June 6 meeting. Where do you envision the various communities will be traveling to on a regular basis?

This issue has already been addressed in our response to question 12 in this enclosure. Our plans for Majuro and Kwajalein hospital are covered in the response to questions 11 and 12.

Q28. USAKA would charge standard rates for medical procedures, such as mammographies. How does this cost out?

As of March 15, 1995, 40 female patients had been sent to USAKA for mammography. The cost as of that date was $21,245. This cost covers the travel, per diem, lodging, and diagnostic costs at Kwajalein hospital. It averages $531.13 per patient. Kwajalein hospital charges $90 for a unilateral mammography, $128 for a bilateral mammography, and $105 for a screening mammography. Attachment 2 projects that mammography and associated logistical support will cost about $40,000 in FY 1995.

Q29. Provide a breakdown of the current program's expenditures.

The breakdown of current program expenditures has already been provided in attachment 2 to this enclosure.

Q30. Provide a breakdown of the anticipated increases in funding needed to operate the programs.

The bar graphs provided in attachment 4 to enclosure 1 provides the best estimate of where we anticipate shortfalls will occur on our level funded budget. Until we enter formal negotiations with the Army and obtain precise cost estimate, and/or further explore what it will cost us to conduct some of these logistic support activities utilizing the new NV maintenance and operations contractor mechanisms (still ongoing), we will not have specific cost breakdowns.

Q31. Provide a breakdown of the anticipated increases in funding needed to operate the programs.

Due to increased overhead costs for Pacific logistics in FY 1995 and the unusual number of medical referrals needing tertiary care (59 patients), it has been necessary to provide PASO with an additional $200,000 over the PASO requested budget of $2.593 million. The total funds to PASO in FY 1995 is 2.793 million. This is nearly 10 percent over their requested budget of $2.47 million at the beginning of FY 1995.

These essential funds to conduct logistic support for medical and environmental missions within the current overall Marshall Islands has resulted in decreases to the other usual program costs.

The table below summarizes the requested funding levels and the funds that went to each program, and the FY 1995 funding levels come from attachment 2:

Lab/Contractor	Requested FY 95 Budget	FY 95 Funding Level	Percent of Request Funded
PASO/RSN	$2.793 million	$2.593 million	95.6%**
BNL MED	0.785 million	0.785 million	100.0%
BNL WBC	0.806 million	0.775 million	96.2%
LLNL ENV.	2.360 million	2.136 million	90.5%
RMI REQ.			
CIC Docs	0.011 million	0.011 million	100.0%
CDROM/BNL	0.030 million	0.030 million	100.0%
JCAHO*	0.070 million	0.000 million	0.0%
RMI Grant*	0.030 million	0.000 million	0.0%
Bioassay Rev.*	0.025 million	0.000 million	0.0%
Totals	$6.910 million	$6.330 million	

* To be funded early in FY 1996 (This will put an extra load on FY 1996 funding needs)

** With the reprogramming of $200,000 of capital equipment funding, PASO will be at 100 percent of total need and 110 percent above their initial FY 1995 request of $2.47 million.

A budget of at least $450,000 is needed in FY 1996 to take care of the increasing medical referrals resulting from the aging Rongelap and Utirik exposed medical patients and comparison population. The associated costs for Pacific logistic support for medical care of the Rongelap and Utirik exposed and the comparison population are a more significant part of the planned budget for FY 1996. The breakdown of medical related Pacific logistic costs are as follows and are already presented in attachment 1 to this enclosure:

Estimated Expenditure	Estimated Costs
Straub Clinic Costs	$ 450,000
Land Based Med/Kwajalein	93,204
Land Based Med/Majuro	39,076
Medical Referrals	
Hono Med Support/Escorts/Per diem/Meals	259,480
Kwajalein Medical Referrals	156,128
Majuro Medical Referrals	150,036
Personnel Costs	
1 FTE Honolulu	70,304
3 Honolulu Temps	45,000
0.5 FTE Kwajalein	33,197
1 FTE Majuro	41,600
1 FTE Ebeye (Part of BNL Med Program)	38,305
3 RMI Nurses/Majuro	2,160
3 RMI Nurses/Roundup personnel	2,520
TOTAL	1,381,010

Projected Budget Needs in FY 1996

Pacific Logistic Support Costs/Medical	1,381,010
BNL Medical Lab Costs	851,000
Subtotal	2,232,010
Other Pacific Logistics (Rest of items in attachment 1) ($2,509,224 - $1,381,010)	1,128,214
BNL WBC/PU Assay	770,000
LLNL Environmental Monitoring	2,553,044
Subtotal	6,683,268
RMI Requests	
JCAHO Review of BNL Medical	70,000
RMI Grant for CIC Access/Docs	30,000
Review of BNL PU Bioassay/WBC	25,000
Subtotal	$ 125,000
TOTAL FY 1996 REQUESTS	6,808,268

Q32. Describe the type, make and year of manufacture of the whole body counting chair proposed for use at Enewetak.

The WBC chair can be best described as a sodium iodide (NaI) crystal-based detection system of standard shadow shielding design. It was designed and assembled at BNL in 1981 exclusively for its present function. The chair weighs approximately 3,600 pounds and can be disassembled into steel plates, support beams, and individual lead bricks for shipment. The assembled chair dimensions are approximately 43 inches wide by 50 inches deep by 39 inches high. The NaI detectors were commercially obtained from Bicron and are 11.5 inches in diameter by 4 inches thick. There are also three, 5-inch diameter photomultiplier tubes coupled to the NaI detector. The entire detector assembly weighs about 90 pounds.

Q33. Describe the other materials and equipment required for the land-based facility at Enewetak.

Other materials and equipment required for the land-based facility are minimal and already exist at Enewetak. After preliminary discussions with Mayor Naptali Peter in May, a room in the Coast Guard station (currently a storage room) would be used to permanently house the whole-body counter and its associated equipment. The requirements associated with this room are as follows:

1. Removal and replacement of the southern facing outside wall to allow the placement and reassembly of the chair components.

2. Air-conditioning to maintain the ambient room temperature between 70 to 85 degrees Fahrenheit. This is important because the NaI detector, the associated electronics and data analysis, and database computer can be easily damaged in hot, humid, and tropical environments.

3. A stable and regulated power supply to maintain conditioned current with fluctuations no greater than 2 percent.

4. A four-outlet source of 110 volts available in the room.

5. A worktable/bench capable of holding the computers and associated electronics (i.e., at least 6 feet long), and a chair for operator use.

6. Lighting sufficient for room use.

7. The room has a concrete floor upon which the reassembled whole-body counter will sit. The loading due to the weight of the air must be confirmed as acceptable.

In addition to the room, a lockable storage area (i.e., cabinet, room, anything securable) to house the associated electronics and a radioactive check source when not in use. BNL is currently evaluating the type of check source to be used and stored at Enewetak. The check source will contain extremely low levels of radioactive materials, so low that they are typically exempt from regulatory controls in the United States. However, we believe it prudent for Enewetak to advise and discuss with RMI if their are any regulatory requirements imposed by RMI on these check sources, and the lead which comprises the shielding for the chair.

The bulldozer and forklift (6,000 pound lifting capacity) already at Enewetak will be required to offload the chair components from its water platform. In support of this activity, a winch and local Marshallese logistical expertise will also be required.

A separate area containing a refrigerator to store urines collected for plutonium analysis and a workbench to acidify the urines prior to packaging and shipment.

Q34. Describe the facility in which the chair and other requirements is to be housed.

The proposed facility is a 8-foot by 7-foot room being currently used as a storage area in the old Coast Guard Station, next to the room, which houses the diesel generators. Additional requirements are provided in the response to question 33.

Q35. Describe the personnel requirements for the land-based facility at Enewetak.

There are two special personnel requirements beyond the current operational staff requirements of the Coast Guard Station to maintain power and air-conditioning, and those Marshallese individuals (approximately 4) designated by EULGOV to constitute the core group of operators to be trained in whole-body counter operation and maintenance.

The one requirement deals with translating the BNL counting, data analysis, and maintenance protocols into Marshallese if necessary. The second deals with the appointment of a facility manager to keep track of who needs to be counted and when. This individual should also be an operator.

Q36. Describe the personnel training for the land-based facility at Enewetak.

There are no special educational requirements necessary. If the individuals are not capable of reading and writing English, translations must be provided. All necessary counting and detector maintenance protocols will be provided by BNL personnel as "on-the-job" training. The only requirement is that the individuals selected, display an ability to pay a great deal of attention to detail, to record data in a logbook and a menu-driven computer-based database, and to rigorously adhere to a strict and disciplined protocol.

Q37. Describe the operation and maintenance plan for the equipment and housing of the land-based facility at Enewetak.

There are none beyond the BNL provided training for the operation and maintenance of the WBC system. However, the identification of individuals in the Enewetak population whose local food consumption and lifestyle provides a potential to make them the maximally exposed individual in the Enewetak population needs to be a community-based activity. This selection is not only limited to WBC, but also applies to urine monitoring for plutonium.

In addition to this ability to monitor those individuals who could have the most dose, the land-based facility offers the ability to monitor the entire Enewetak population over a period of 1 year and selected individuals at any time. A counting protocol of monitoring one-quarter of the population on a calendar quarter basis. To ensure accurate results, each individual must be counted for 15 minutes. If there are approximately 200 people to count each calendar quarter, this will result in about 50 hours of real counting time over the calendar quarter. In addition, quality control and data processing will require an additional estimated 10-15 minutes per count by the operator. Thus, a facility manager should be appointed to manage and maintain this surveillance requirement.

Q38. Describe how urinalysis is to be conducted at Enewetak, including equipment required, personnel, operation and maintenance, storage and shipping.

BNL is currently evaluating the best and technically correct method to collect and screen urine samples for a land-based program. Only collection, sample preparation, and shipment will be locally required at Enewetak. BNL will furnish protocols and DOE will furnish collection bottles and supplies for this purpose.

Q39. Describe the cost of whole body counting and urinalysis, and related equipment necessary for the whole body counting and plutonium detection of the Enewetak population.

There are no costs to the Enewetak community associated with the program at Enewetak. DOE will continue to fund BNL for the services described above and will reimburse Enewetak for any support costs that arise based on mutual agreements in the MOA developed.

Q40. Describe the cost of the land-based facility including cost of equipment, housing for equipment, personnel, operation and maintenance, storage and shipping.

There are no costs to the Enewetak community associated with the program at Enewetak. We will reimburse Enewetak for any space, air conditioning, and electrical costs that we understand will result from use of a room in the field station, and for any lodging support needed by visiting DOE personnel.

Q41. Describe the funding source of each cost item mentioned above.

There are no costs to the Enewetak community associated with the program at Enewetak. Enewetak trainees will be reimbursed with some mutually agreed salary inducements. This will make it possible for Enewetak to do WBC on the entire resettled population at least annually. This improved capability will allow the Enewetak community to better identify those individuals that need to be followed more closely and the assessment of local diet and other factors, which contribute to each individual's dose.

Q42. Describe in detail Brookhaven's involvement in the land-based facility at Enewetak.

BNL will continue to maintain all records and perform dose and statistical assessments. It is anticipated that BNL will visit the counting facility twice a year to perform calibrations with a phantom, and to selectively recount individuals to verify accuracy of results. It is most important that data be shared, i.e., the WBC results be sent to BNL for data interpretation on a periodic basis. As noted previously, BNL will continue to analyze the urine samples for plutonium.

Q43. Describe how LLNL will conduct its environmental work on Enewetak.

The LLNL environmental program at Enewetak Atoll currently conducted by using the support of the research vessel "Offshore Venture," will in the future be supported by the Army LCU 2000. We conduct an environmental characterization program that consists of grid-sampling for vegetation and soils on several islands, a radioecology research program on Ejebi Island, and a special monitoring program for the Cactus Crater Region.

The islands that have been sampled in the last 2 to 3 years as part of the environmental characterization effort include: Enewetak; Medren; Japan; Alembel; Lojwa; Lujor; and Ananiji. We have collected about 2,800 samples from these islands. The analysis of the vegetation samples are complete and the soil samples are nearly ready for analysis. Islands remaining for environmental characterization include Aomen; Bijire, Aej; Runit; Ejebi; and any other islands agreed between DOE and the Enewetak people. These will be completed over the next 2 to 3 years.

We have completed two separate samplings of the well water, lagoon water, and fish from the area near and around Runit Crater. The results of the first sampling were reported at the December 1994 Program Review Meeting in San Francisco, California. The results of the second sampling will be reported late this year.

We have also done a detailed sampling of the soil in the burm around the crater on Runit Island and 30-foot radials from the crater out into the island. These samples are currently being processed and the data will be available in the early part of 1996.

Q44. Describe all alternatives explored with respect to securing a vessel for the LLNL environmental work.

The needs of the Environmental Monitoring Program require the capability to place large pieces of equipment ashore to each mission. The LCU 2000 is the only vessel that provides this capability in the Marshall Islands area. Since it can be utilized for only about 60 days per year, it offers the only option available if we are to realize cost savings from maintaining the Offshore Venture for a full year lease.

Q45. Describe the cost of the vessel necessary for environmental work.

This information has already been provided in question 4 of this enclosure.

Q46. Describe all program changes in detail. (This information will be essential for the July 28 meeting, please prepare it in advance.)

Medical examinations and primary care will be delivered at either Majuro or Kwajalein hospital. This land-based medical program will provide access to the more sophisticated medical diagnostics that are needed for an aging population. Specialty physicians, like a surgeon or gastroenterologist, can accompany each mission and will be able to do the fine needle aspirations, thyroid surgeries, thyroid and breast ultrasounds, mammographies, etc. The new requirements for certification of these techniques is now making it impossible to continue to provide these services aboard a vessel.

Patients will be flown, in groups by charter, from Utirik or individually, when needed, in between medical mission times. If certain specialties are needed in between missions, it will be possible to do limited followup at the land-based facilities in the Marshall Islands to eliminate the lag time in getting some patients the tertiary care they need. When facilities or specialties are not available in the Marshall Islands, DOE will continue to send patients to Straub Clinic for the more difficult surgeries and medical care procedures.

Urine samples for dose assessment of plutonium will be taken routinely as a part of the medical examination and diagnostics. Samples will continue to sent to BNL for analysis. We are exploring the possibility of using Inductively Coupled Plasma (ICP) Mass Spectrometry to allow for the rapid sample analysis for larger numbers of people. These can be done at a lower cost and results can be reported more quickly. New technology is approaching the level of minimum detectable activity inherent in the current fission track assay process.

The shift to a land-based medical program will mean that a vessel will only be needed for about 60 days a year for the environmental missions. The cost of a vessel for a full year ($899,345 + the vessel operations costs of about $87,326 ($986,671 total)) can be reduced to about $221,532 leaving $756,139 left to assist in providing the Pacific logistic capability for the environment monitoring and dose assessment programs, as well as offsetting the expense of land-based medical missions. The projections of these costs are covered in attachment 1 to this enclosure.

Environmental missions will continue to be conducted on a twice yearly basis to the full extent that a level funded budget permits. There will be little change to the environmental monitoring programs short of LLNL more direct involvement in logistic preparations and readiness for missions. These roles are still being discussed as to the best way to achieve similar logistics without the intermediary RSN to run daily operations.

WBC will be shifted to a land-based mode to permit use of the equipment year around as described in question 17 of this attachment. This will provide the capability to do larger numbers of the resettled populations on an annual basis and will permit use of local trainees who can learn and operate the equipment thus promoting self-reliance. DOE will continue to provide the support discussed in question 17 above.

DOE will continue to use the logistics provided previously by the Army at Kwajalein to assist in areas that involve shipment, storage, Military Airlift Command (MAC) flight access, lodgings, subsistence for patients/travelers, local transportation, etc., as they have had in the past.

Q47. Is DOE's long-term plan to phase in the Army, and phase out DOE? What assurances do we have of a long-term DOE commitment?

DOE has no plans for phasing out the existing program to the Army and considers this program to be a long-term commitment. The medical surveillance and care program will continue until there are no more survivors of the Rongelap and Utirik exposed population. The environmental monitoring program is mandated by U.S. Public Law and will continue as long as the U.S. Congress continues funding to DOE for this purpose. This will certainly involve continued monitoring prior, during, and after resettlement to assist local atoll Government assurance of the continued safety of those who resettle in areas of potential residual contamination.

Q48. Rongelap is preparing for resettlement. The needs of the community will be changing as resettlement takes place. Has there been a concerted effort to understand the long-term budgetary and program quality effect of shifting responsibility from one agency to another?

Since there is no plan at DOE or in the U.S. Congress to transition this program to another agency, there is no reason for concern that such an action might occur. As the need for Rongelap environmental monitoring for resettled populations arise, DOE will be working with the Rongelap community to institute protocols and procedures that are consistent with those recommended in the RMI National Radiological Study and those of the U.S. National Academy of Sciences.

Q49. Do you have an action plan for any of these proposed arrangements with the Army? If so, please provide it.

Once we begin the more formal negotiations with the Army, per question 5 and 14, we will be identifying the specific needs for FY 1996 Pacific support efforts. When this is completed, we should be able to provide you an overview of what is planned. Per your request, we have held off

any negotiations, beyond initial discussions, until we have had the opportunity to discuss these issues with the RMI community at the July 28, 1995, meeting in Majuro, Marshall Islands.

4 Attachments

HQ/DOE	$
LOGISTICS FY 96	
ESTIMATED BUDGET	
Overall Maintenance Costs	
Maintenace & Services	$132,820
Vehicles/RMI/Rental	$5,620
Billeting	$8,170
Meals/Incidentals/Majuro	$1,840
Trailer Renovation/Kwa j	$5,876
Subtotal	$154,326
LLNL Environ. Missions	
LSU 2000	$221,532
Environmental Operational Costs	$97,054
Land Based Med Program	
Kwajalein Medical Program	$93,204
Majuro Medical Program	$36,020
Dose Assessment/WBC	
BNL Land Based Support Costs	$39,076
Subtotal	$486,886
Bikini - LLNL pick up 1 FTE	$100,000
Operation/Field Station	$100,000
Personnel - Local Hires	$50,000
Small Boat Services	$28,468
Subtotal	$278,468
Personnel Costs	
2 FTE Hono/$20/hr (2080 hrs)/69% load	$140,608
Hono Temp Hires/3 @ $15K	$45,000
1 FTE Kwaj/$20/hr (2496 hrs)/100% load	$148,761
0.5 FTE Local/Kwaj/$10/hr x 2080/100% load	$33,197
6 Locals/Bikini/28days x 2 missions	$48,061
1 FTE Majuro	$41,600
1 FTE Ebeye ($50K) In BNL Budget	$0
3 Nurses/Lab Techs x 10 days/Majuro	$5,380
3 RMI Nurses/3 RMI Roundup/Kwaj	$2,520
1 Local Hire/WBC	$8,773
Subtotal	$473,900

Attachment 1
to Enclosure 2

Medical Referral/Honolulu	
Air/Hono	$89,400
Hotels/Hono	$106,700
Meals/Hono	$63,380
Straub Clinic Hosp. Costs/Hono	$450,000
Subtotal	$709,480
Medical Referral/Kwaj	
Air/Within Majuro	$87,670
Marine Costs	$16,440
Vehicles	$2,276
Billeting/Patients	$13,822
Meals & Incidental Costs	$35,920
Subtotal	$156,128
Medical Referral/Majuro	
Air/Within Majuro	$75,656
Vehicles	$10,660
Billeting/Patients	$40,920
Meals & Incidental Costs	$22,800
Subtotal	$150,036
Grand Total	$2,409,224

PASO/RSN LOGISTICS. FY95	$
ESTIMATED BUDGET	
VESSEL CONTRACT	
Offshore Venture	$899,345
MATERIALS & SERVICES	
Program Support	
Medical Support	$106,705
LLNL/Bikini Field Station Support	$239,726
Kwajalein Support	$175,458
WBC Support	$9,366
Majuro Office	$12,178
Subtotal	$543,433
Medical Referral - Logistics	
Transportation Cost	$62,665
Hotel Cost	$24,383
Per Diem Cost	$35,826
Kwaj Mammography Support	$40,000
Subtotal	$162,874
Program Administration Costs	
Support Service Charge	$190,104
Material Surcharge	$26,401
Services Surcharge	$61,238
Subtotal	$277,743
Subtotal/Materials & Serv.	$984,050
HOSPITAL SERVICES	
Straub Clinic & Hospital	$234,862
LABOR/PERSONNEL COSTS	
Kwajalein Support (2.5 FTE's)	$162,510
Majuro Support (0.75 FTE's)	$14,025
Bikini Support (4.24 FTE's)	$266,686
Medical Support (0.32 FTE's)	$20,180
Patient Referral Support (0.83 FTE's)	$11,342
WBC Support (0.00 FTE's)	$0
Subtotal	$474,743
Grand Total	$2,593,000

Attachment 2
to Enclosure 2

DRAFT

MEMORANDUM OF AGREEMENT (MOA)

by and between

THE U.S. DEPARTMENT OF ENERGY (DOE)

and

THE ENEWETAK/UJELANG LOCAL GOVERNMENT COUNCIL (EULGOV)

REPUBLIC OF THE MARSHALL ISLANDS (RMI)

I. BACKGROUND

The DOE Marshall Islands Program heretofore has provided whole-body counting (WBC) capability to the Enewetak people by conducting shipboard missions to Enewetak. EULGOV's recent requests to cover the entire resettled population of some 800 individuals at least once every 2 years, if not yearly, is exceeding the capability of the current program and logistically is becoming difficult.

Preliminary discussions with the Senator of Enewetak, Senator Ismael John, indicates that EULGOV would be interested in permanently locating a DOE whole-body counter at the Enewetak Island field station for use by the Enewetak people for routine WBC. It is possible to transfer the WBC chair and initial equipment as early as November 1995. A team of DOE personnel would visit Enewetak in October 1995 to assist in setting-up a WBC system using existing equipment.

Local Enewetak trainees could become proficient in operating the whole-body counter at intervals convenient to covering the Enewetak population at regular intervals over the year. DOE would assist in this training, could set up initial calibration, train chosen Enewetak designees on the proper calibration techniques and procedures, and will periodically ensure that the calibration is being conducted properly.

Joint sessions with DOE personnel present could verify procedures, cross compare operational procedure and results, and share in joint analysis of the spectral peaks found in the Enewetak people so monitored, both during the joint sessions and when Enewetak is conducting them themselves.

Common data banks could be developed to enable cross discussion of any changes in individuals that might require DOE assistance or interpretation.

Attachment 3
to Enclosure 2

II. OBJECTIVES

1. Custody and overall responsibility for the WBC equipment would be transferred over to EULGOV, who would assume the role of performing local whole-body counts on the Enewetak populations after a sufficient period of training and transition to be completed no later than September 1, 1996.

2. DOE would continue to assist in periodic calibration, shared periodic visits, and joint retention and interpretation of WBC spectrums and raw data. These DOE services will be done at the request of the EULGOV and will be provided at least twice a year. Upon request, and upon demonstrated need, DOE will entertain visits at a frequency of four times a year, if that should be found to be necessary.

3. EULGOV will assume custody and will ensure security and continued operational capability of the WBC system as it conducts local WBC.

4. EULGOV will make available Enewetak individuals who will be trained and will become the operators of the WBC equipment.

5. In order to ensure that EULGOV is made capable to conduct these whole-body counts locally at Enewetak Island, EULGOV and DOE agree on the following understandings.

III. UNDERSTANDINGS

PURPOSE OF WBC

1. WBC can serve the purpose of radiological monitoring of Enewetak individuals who have returned to their home atoll. In the past, WBC was used to estimate total body burdens of cesium-137, potassium-40, and cobalt-60. Cesium-137 is the major fallout contributor to dose in the Enewetak people. Thus, at present, WBC is used only to estimate total body burdens for this isotope.

2. WBC can indicate the presence of cesium-137 in local foods ingested from nearby more contaminated islands within 3 months prior to the count. This becomes an effective means to detect the presence and evaluate the internal dose from foods ingested by the Enewetak people that may have more contamination than is desired. Elimination of foods from specific identified locations where such contamination is above the normal incidence in most other locations can be most effective in reducing cesium intake. This is especially effective when it is discovered soon after the consumption of such food.

3. WBC measurements can be used to estimate the dose from, and to monitor trends of, cesium uptake in an individual or in whole populations. Dose assessments are used to monitor the internal

exposure due to residual radioactivity in the environment and to ensure the radiological safety of the Marshall Islanders.

TRAINING

4. A permanent WBC capability at Enewetak can serve as a valuable training and educational tool and will ensure the involvement of the Enewetak people in the close monitoring of their own dose from local food sources and radiation safety in general.

5. Continuing training will be very important. Initial selectees will need to be identified for initial training and can then train others to assist them. It will be important to consider proper intervals for retraining on a periodic basis.

COMPONENTS AND NEEDS OF THE ENEWETAK WHOLE BODY COUNTING CENTER

6. The land-based system at Enewetak will require:

- o A dedicated air conditioned secure facility;
- o At least one air conditioned room for equipment;
- o A storage room with a lockable cabinet;
- o A waiting area if groups are to be handled (could be outdoors with a cover to provide shade and protection from the rain);
- o A stable (i.e., regulated) secure power supply;
- o A whole-body lead shielded counting chair (DOE will provide);
- o A constant supply of power and air conditioning to maintain consistency of the electronics and the sodium-iodide crystals (heat and humidity, especially where salt or sea spray are high, will damage these components);
- o A dedicated computer with a Canberra System 100 multichannel analyzer card, GAMMA-AT software, and a printer (DOE will provide);
- o Photomultiplier tubes (DOE will provide initially); and
- o A separate computer may be required for database operation depending on how the station is configured (DOE will provide).

QUALITY ASSURANCE

7. Quality assurance (QA)/quality control (QC) of WBC is necessary to ensure the validity of data and will require the establishment and adherence to a strict protocol of calibration and recounts, as well as extensive checking of data.

8. Calibrations and other operations require the use of a BOMAB phantom (perhaps twice a year). DOE will bring this in as needed.

9. It is anticipated that DOE will normally provide calibration and QA and QC support to EULGOV twice a year. At these times, DOE would ensure the correct calibrations using the BOMAB phantoms, frequent

use of check sources, recounts, and comparison of data on individuals randomly chosen from the pool of people already whole-body counted locally during the preceding 3 months.

DATA COLLECTION AND SHARING

10. Strict protocols need to be established and should be followed for data acquisition and during the time the whole-body counters are recording data. This information will need to be added to logbooks. A separate computer database will need to be developed and maintained that has personal and demographic information included. A photograph of each person who receives a whole-body count will be needed for entry into the database to ensure proper identification.

11. It is considered important to establish the principle of data sharing. All data collected by EULGOV or by DOE will be placed into a common database so that there is joint retention and interpretation of whole-body counting spectrums and raw data. It is recommended that this be the current MS/ACCESS system already in use by DOE. DOE will assist EULGOV in establishing and maintaining such a common database system.

CALIBRATIONS AND MAINTENANCE

12. Enewetak staff will need to become familiar and comfortable with using these BOMAB phantoms and with the check sources that need to be used for calibrations. Although these BOMAB phantoms and check sources do give off very low levels of ionizing radiation, handling them through the year will result in non-hazardous radiation doses. It should be understood that proper handling of these radioactive sources presents no additional level of risk to personnel doing the routine calibration and operation of the WBC.

13. Associated photomultiplier tubes will require periodic maintenance. Once DOE trains in this maintenance, EULGOV trainees will assist in ensuring that this maintenance is completed. DOE assistance or expertise will be provided, upon request, as needed.

CONTROL AND ACCOUNTABILITY OF RADIOACTIVE MATERIALS

14. EULGOV will need to interface with RMI authorities to ensure that RMI regulatory authorities are aware of the presence of these licensed sources and are involved in the establishment and necessary inspection of the WBC stations. This will ensure that they meet all RMI requirements for their presence and use.

IV. COORDINATION

1. Authorities for the implementation of this MOA are the Director, Office of International Health Programs for DOE and the Senator and Mayor of the Enewetak/Ujelang Local Government Council. This should be done with the knowledge and concurrence of the Minister of Health and Environment for RMI.

2. It is noted that broad authority over such establishment of WBC capability at Enewetak and the responsibility for care, maintenance, security, data sharing, calibration will be embodied in EULGOV after initial turnover training and assistance is completed by DOE.

VI. REVIEW AND CONCURRENCE

This MOA will be reviewed and updated once every 5 years by EULGOV and DOE authorities or their designees.

Paul J. Seligman, M.D., M.P.H.
Acting Director
Office of International
Health Programs
Department of Energy

Thomas Kijiner
Minister of Health
and Environment
Republic of the Marshall Islands

Senator Ismael John
Senator, Enewetak/Ujelang Local
Government Council

Mayor Naptali Peter
Mayor, Enewetak/Ujelang Local
Government Council

Approved as to form:

Attorney General
Republic of the Marshall Islands

DRAFT

MEMORANDUM OF UNDERSTANDING (MOU)

by and between

THE U.S. DEPARTMENT OF ENERGY (DOE)

and

THE REPUBLIC OF THE MARSHALL ISLANDS (RMI)

MINISTRY OF HEALTH AND ENVIRONMENT (THE MINISTRY)

I. BACKGROUND

The Ministry is responsible for establishing health policy and for the administration and delivery of health care to all Marshallese. The Ministry provides for treatment and care through its various bureaus and divisions throughout the Marshall Islands.

United States Public Law (P.L.) 96-205 authorized the establishment of a specific program of comprehensive health care under the U.S. Department of the Interior (DOI) for the people of the four Marshall Islands atolls of Bikini, Enewetak, Rongelap, and Utrik (the four atolls), who were affected by the U.S. nuclear testing program. Accordingly, a medical treatment and care program was implemented by DOI in the Marshall Islands. This program became the responsibility of the Government of RMI with the implementation of the Compact of Free Association (U.S. P.L. 99-239), and it is presently known as the Section 177 Health Care Program (the Section 177 Program).

DOE, through U.S. P.L.'s 95-134, 96-205, and 99-239, also provides medical surveillance and monitoring of those Rongelap and Utrik individuals exposed in the Marshall Islands (the exposed population) to radioactive fallout on Rongelap and Utrik Atolls as a result of nuclear test BRAVO in 1954. The 253 originally exposed persons of Rongelap and Utrik have been monitored and treated by DOE and its predecessor agencies since 1954. The surviving members of the exposed population now number approximately 139.

All of the exposed population are currently enrolled in the Section 177 Program, as well as with the DOE medical surveillance and monitoring program activities. The United States continues to provide special medical care and related logistical support to the remaining exposed population.

II. OBJECTIVES

1. Overall responsibility for health care and treatment in the Marshall Islands rests with the Ministry of RMI. One of the Ministry's principal objectives is to ensure that the general health care of the population is delivered within a coordinated, unified framework. Accordingly, the Section 177 Program is administered as a unique, but integrated part of RMI's overall health care system.

2. The Section 177 Program's major objective is to provide or arrange for the provision and delivery of primary, secondary, and tertiary health services and health education to the people of the four affected atolls.

3. DOE's objective in working cooperatively with the RMI health care system and primarily the Section 177 Program is to provide, in accordance with U.S. P.L. 99-239, "special medical care and logistical support to...the remaining members of the population of Rongelap and Utrik who were exposed to radiation resulting from the 1954 United States thermonuclear test Bravo."

4. In order to ensure that health care and services are provided to the people of Rongelap and Utrik atolls affected by, or exposed to, radioactive fallout from nuclear testing in a unified, coordinated, and non-duplicative manner, the Ministry, the Section 177 Program, and DOE agree on the following understandings.

III. UNDERSTANDINGS

DOE USE OF MAJURO AND EBEYE HOSPITAL FACILITIES AND STAFF

1. DOE will conduct its Marshall Islands medical surveillance and medical care for the exposed populations of Rongelap and Utrik in a land-based mode rather than on shipboard as in the past. This is being instituted to provide more extensive capabilities for patient care that is difficult to provide aboard ship.

2. DOE will require the assistance of the Ministry to provide the examination and medical care space, facilities, and common use of diagnostic equipment. There will be a requirement at least twice yearly for 3 weeks at a time to utilize facilities at the Majuro Hospital and at the new Ebeye Hospital, if and when it becomes available for use. This will entail the use of:

   - four patient examination rooms;
   - one administrative check-in area;
   - space for setup of DOE laboratory equipment;
   - backup use of Majuro/Ebeye laboratory equipment in emergency;
   - use of diagnostic x-ray and ultrasound equipment; and
   - use of surgical rooms for special cases needing surgery.

3. If patient care requires, DOE medical teams may need to revisit the Majuro and Ebeye hospitals approximately two additional times each year to followup on special patients and provide needed medical surveillance and care. In this case, additional periods of 7 days would be required with needs similar to those in section III, 2.

4. The Ministry and the Section 177 Program will provide the services of medical staff and translators to the DOE medical team visits at the hospitals in Majuro and Ebeye.

PLANNING PRIORITIES AND NOTIFICATIONS

5. The Ministry and the Section 177 Program will provide input to DOE on RMI's health program needs and priorities, and availability to support DOE medical team visits sharing the use of Majuro and Ebeye hospitals.

6. DOE will keep the Ministry and the Section 177 Program informed of planning for each DOE medical team visit to the Majuro and Ebeye hospitals, and of the protocols and diagnostic procedures that are planned to be utilized during such medical team visits.

LOGISTICS FOR EXPOSED AND COMPARISON POPULATIONS

7. The Ministry, the Section 177 Program, and DOE will coordinate medical referrals within and outside the Marshall Islands for the DOE exposed population only.

8. DOE will be responsible for making arrangements for transport and lodging of exposed patients for annual examinations or followup care and their authorized escorts to Majuro and Ebeye. DOE will assume costs for the transportation and per diem of such patients and their escorts associated with each medical team visit.

9. During the medical team visits, DOE may also make referrals of exposed persons with illness determined to be radiogenic to treatment facilities at Kwajalein Army Hospital or outside of the Marshall Islands for diagnostic procedures and medical treatment. DOE will be responsible for costs of such referrals, including medical, transportation, and related expenses.

10. DOE will make a request to the Ministry for medical translators and technical and other support personnel necessary to work with DOE medical teams, including transportation of DOE patients from the various other atolls to Majuro and Ebeye. DOE will request such individuals by number, medical or other skill, and gender no later than 45 days prior to each medical team visit.

11. The Ministry will identify, select, and assign the requested personnel on a regular duty status to assist the medical teams.

REIMBURSEMENTS

12. The Ministry and the Section 177 Program will reimburse DOE for any costs of subsistence and quarters at the U.S. Army facility at Kwajalein for medical staff that may be present to share in medical care and treatments at the Ebeye Hospital. This will not exceed the RMI local per diem rate. Participation will be coordinated with DOE at least 45 days before the RMI medical staff visits Ebeye Hospital.

13. DOE will provide support funding to offset the administrative hospital costs in cases where shared use of Majuro Hospital facilities and equipment are needed. This will be arranged through quarterly evaluation of costs that are related to DOE conducting its activities in the Majuro and Ebeye hospitals.

14. For requested RMI staff support at the Majuro and Ebeye hospitals, if that is deemed necessary, DOE will reimburse RMI for the regular salaries of its utilized personnel based upon the standard 8-hour work day for each day served on a medical team visit. In addition, DOE shall pay each requested RMI staff personnel a daily stipend of $15 while assisting the DOE medical team. If travel is necessary, the Ministry shall be responsible for their travel authorizations. DOE will assume costs for the transportation and per diem if needed to assist the DOE medical team. Transportation and per diem costs will be paid in accordance with DOE policies and rates.

RMI MEDICAL STAFF USING KWAJALEIN FACILITIES

15. The Ministry and the 177 Program will provide DOE with identifying information on the such medical staff participation at Kwajalein including: full name, social security number (U.S. or Marshallese as appropriate), and date and place of birth. During such medical team visits, for the purpose of entry and exit to the U.S. Army facility at Kwajalein, DOE will sponsor accompanying personnel from the Ministry and Section 177 Program.

DOE PHYSICIAN ASSISTANCE

16. During the DOE medical team shared use at the Majuro or Ebeye hospitals, DOE will make the medical specialties of DOE provided physicians available for consultation and assistance for special cases presented by the 177 Health Care Program. This will be offered when the needs of the exposed population have been met and within normal working hours.

17. Requests from the Ministry for recruitment of U.S. physicians will be accommodated, if possible. Requests for DOE sponsored physician assistance will be for established medical specialties consistent with the DOE medical program to meet Ministry and the Section 177 Program health consultation needs.

18. Such requests will be accommodated, if possible. Requests for any special medical consultation must be provided to DOE no later than 120 days before the start of a DOE medical team visit.

19. DOE will accept individual consultations from the Ministry and the Section 177 Program at no cost to the Ministry or the Section 177 Program. Each consultation request must be accompanied by an authorized referral document, relevant medical history, and examination/problem workup record.

20. DOE will provide the RMI referring physician with a copy of the examination and treatment record, as well as recommended followup for each non-program person seen on a mission.

FOUR ATOLL CONSULTATIONS AND REFERRALS

21. The Ministry and the Section 177 Program will examine and treat eligible individuals from the four atolls, including exposed persons who are on the DOE lists and at no additional cost to DOE.

22. The Section 177 Program is responsible for referrals to treatment facilities (including medical, transportation and related costs) within and outside the Marshall Islands for all of the four atoll populations enrolled in the Section 177 Program.

23. DOE may recommend to the Section 177 Program patients that need referral for secondary and tertiary care. Such patients may be either exposed or unexposed persons covered by the Section 177 Program. The Section 177 Program will make appropriate referral determinations through its own physicians and use of resources.

24. For exposed persons determined to have non-radiogenic illness or conditions, DOE will delegate referral and treatment of such patients to the Section 177 Program. It is expected that the Section 177 Program will assume responsibility for the continued referral and treatment of such cases.

25. For exposed patients transferred to the Section 177 Program, DOE will assume responsibility for providing round-trip tickets, and to ensure that these are utilized to transport the referral patients to and from the point of origin. This will be accomplished in coordination with the Section 177 Program. The Section 177 Program will also refer exposed persons with suspected radiation-related illness to DOE for appropriate action.

26. The Section 177 Program and DOE will cooperate, where practical and feasible, to facilitate the achievement of their respective objectives. This shall include, as available, the use of medical personnel, equipment, supplies, communication gear, assigned radio frequencies, means of transportation, etc., particularly during DOE's medical team visits to Majuro and Kwajalein/Ebeye. Such sharing shall be coordinated through the DOE representative.

SHARING MEDICAL DATA AND RECORDS

27. The Section 177 Program, the Ministry, and DOE will exchange information and medical records on eligible individuals, within their respective programs, within 60 days of seeing the patient. A written signed release of the patient is required, and adequate attention should be given to exercising safeguards to ensure the privacy and confidentiality of the information.

28. The Section 177 Program will provide DOE with followup reports consisting of a clinical summary of the medical care provided and the status of patients referred to the Section 177 Program by DOE.

29. In order to enable DOE to adequately plan the missions to meet the health care requirements of the exposed population, and to ensure that the medical records used to treat the exposed population are current and contain all significant health care information, the Section 177 Program and the Ministry will promptly inform DOE of all serious illnesses and deaths that occur within the exposed population.

30. Death certificates, where available, will be provided to DOE within 1 month of learning of the death. DOE will make the data in the medical records available to the Section 177 Program, if requested.

IV. USE OF DOE/DEPARTMENT OF DEFENSE (DOD) FACILITIES

Other facilities that may be available, if mutually agreed upon, to be shared without charge among DOE, the Section 177 Program, and the Ministry, are as follows:

1. Use of Kwajalein Army Hospital facilities for primary medical surveillance and medical care for DOE patients through the auspices of the DOE medical program.

2. An air-conditioned laboratory trailer at Ebeye Island near the Ebeye Hospital. This may be moved to Kwajalein Hospital location if the need arises.

3. Portable examination vans (female and male) that may be used at Majuro and Kwajalein/Ebeye hospital locations.

4. A portable radiography van that may be used at Majuro or Kwajalein/Ebeye hospital locations.

V. COORDINATION

1. It is recognized by the Section 177 Program and DOE that the objectives of this MOU cannot be realized without the involvement, participation, and contribution of the Ministry of RMI. Accordingly, DOE and the Section 177 Program will continue to coordinate and to consult with the Ministry on their plans and missions.

2. Authorities for the implementation of this MOU are the Director, Office of International Health Programs for DOE and the Minister of Health and Environment for RMI. It is noted that broad authority over the Section 177 Program may be exercised by the Minister to ensure that the Section 177 Program's activities are coordinated within its unified health services system. It is likewise noted that the procedural aspects of DOE's implementation of the MOU shall be typically exercised by the DOE representative in the field.

VI. REVIEW AND CONCURRENCE

This MOU will be reviewed and updated once every 5 years by the Section 177 Program authorities or their designees.

Paul J. Seligman, M.D., M.P.H.
Acting Director
Office of International
Health Programs
Department of Energy

Thomas Kijiner
Ministry of Health
and Environment
Republic of the Marshall Islands

Approved as to form:

Attorney General
Republic of the Marshall
Islands